

A Third World Threat and the United States Marine Corps (Pelli)

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Subject Area Warfighting

INTRODUCTION

The objective of this paper is to take an accepted military policy assumption, change it, and evaluate the effect this change has on the Marine Corps in the next 30 years. This new assumption is actually one that is presently being wrestled with by senior American policy makers within the Administration, Congress, the Department of Defense and the Marine Corps. Recent warming of East-West relations, the slow democratization of Eastern Europe and the upheaval in the Soviet Union are just a few of the changes that are presently reshaping the international scene. Nationally, the United States is faced with a significant budget deficit. Budgeting constraints and increased economic competition with other nations coupled with the changing international picture have caused U.S. leaders to begin to reevaluate the entire national military strategy. This reevaluation has resulted in an emphasis on global stability principally focused on the Third World.

The thesis of this paper is that the Third World is now the primary threat to U.S. interests. This is not really a change to an accepted military policy assumption. However, this is a new assumption for the Nation, one that it has yet to come to grips with fully. The impact of the "new" reality is not yet known. It has resulted in important changes within the Department of Defense, already. The military services are just beginning to determine what the impact of the changing global picture will mean. With the diminution of the Soviet threat and the supposed end to the Cold War, all of the services are searching for new roles and missions in an effort to maintain their viability and hold on to cherished funds, weapon systems and programs.

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Already, many observers are predicting the possibility of bloodletting among the services as each attempts to establish its importance in defending American interests in the Third World.

Despite efforts to continue to emphasize the joint approach to military defense endeavors, parochialism is sure to abound. All of the services are facing budgetary and force reductions; none want to lose traditional roles and missions and all want a significant part of the new ones. There is general agreement that all of the services will have to be structured for flexibility and rapid deployment. Warning time for future conflicts will be measured in days and weeks rather than months and years. The previous international political situation provided relative confidence in where possible flashpoints may occur. Today, a trouble spot may be anywhere on the globe. Changing alliances, overseas base closings, etc. provide new difficulties for the military in terms of being at the right place, in time and with the right forces. In total the challenges for the military establishment and each of the services are monumental.

For the Marine Corps there are unique challenges. It is a small service sharing with its big sister service, the Navy, the funding and attention of the Department of the Navy. Also, in terms of aviation and amphibious lift the Marine Corps is at the mercy of the Navy: "blue dollars" pay for Marine aircraft and buy the ships that provide the Marines with the amphibious lift which is essential for it to conduct amphibious assaults. As will be shown, amphibious assaults and the essential shipping for such operations must be the central focus for the Marine Corps in the next 30 years if it is to continue to play an important and indispensable role in the defense of the United States.

"Too often in the past, strategists have been surprised

because their 'facts' turned out to be based too little upon capabilities and too much upon assumptions of intent—or vice versa." (12:47)

"To respond to the question—what can you do for me tomorrow?—requires looking ahead. It is critical to have some idea about the locale and conditions of the potential future conflict...Of particular difficulty is balancing the probability of an event versus the effect upon U.S. security if it does occur." (93:20)

BACKGROUND DISCUSSION

It has become almost a cliche that armies train and prepare to fight their last war. Even a relatively cursory historical search will show that this is often the case. There is a real danger in this because events, technology and a few forward thinking military leaders in the armies of future adversaries will see to it that the next war will always provide new and unique problems and challenges to be surmounted in a quest for victory.

The United States and its Western Allies have recently emerged from a long and expensive war with the Soviet Union and its allies. They embarked on a less than bloody world war which has lasted some forty-plus years. It began almost at the conclusion of World War II and essentially ended in the late 1980's. Most nations recognized that they were in a war of sorts, a Cold War; the Western allies' immediate goal was to prevent the Communists from establishing hegemony over the whole world. No one knew how long it would take or what the eventual end state would be. While the Cold War was relatively tame for a global war, there were scores of small brush fire wars and a number of wars between the world players and their opposition proxies, i.e. in Korea, Vietnam, Afghanistan, southern Africa and Latin America. The Cold War proved to be an expensive endeavor for all concerned.

Billions of dollars were spent on both sides. While the Soviet Union and its allies sought to expand their dominance through revolution, guerrilla warfare and a massive arms buildup, the United States and its allies established a strategy of containment. Containment had dual elements. The first was to directly engage in counterinsurgency against guerrilla revolutionaries. Also, economic and political efforts were made to bolster governments friendly or allied to the West. The second element was much more focused and expensive. The West

engaged in an effort that would deter the communist machine. This was built upon two equally important forces, nuclear and conventional. Mutually assured destruction through nuclear war served to discourage Soviet nuclear attack. A strong conventional defense sought to convince the Soviets that a conventional ground war would be far too costly and of such questionable outcome as to make it less than palatable for either side.

Containment worked, the West may have lost some of the revolutionary wars but in the main there has not been an East-West confrontation that has led to a global shooting war. Recent events in Eastern Europe and Nicaragua have resulted in a shrinkage of Soviet dominance world wide. And the social political and economic upheaval in the Soviet Union itself has placed it in a position where its greatest concerns are now focused inward. Recent and pending treaties have significantly lessened the possibility of either nuclear or conventional war with the Soviets. This, taken with events in Eastern Europe and the Soviet Union, provide for the possibility of a final end to the Cold War between the East and West. If this does occur, and only time will provide the real answer, the United States must refocus its national policy to meet its vital interests in an entirely new world.

To begin to understand what a Third World focus will mean to the United States in terms of its military strategy, force structure, and technology, one must first consider what types of threats the Third World offers. While the "Third World" generally conjures up thoughts of backward, poor, unsophisticated nations, in terms of military capabilities, Third World countries offer a broad spectrum for warfare. Some maintain large conventional forces, i.e. Vietnam has over a million men, North Korea 840,000, Syria 400,000 and Brazil 320,000. India has 1.36 million men in uniform with a relatively sophisticated technological capability, importing over \$500 million in arms annually.

Its defense budget has risen from \$4.09 billion in 1980-81 to \$9.89 billion in 1989. Brazil, with far less troops, has a rather extensive arms industry, ranking among the top 16 exporters of arms in the world. (29:3,14-15,26) (48:58) Malaysia is developing a strategic rapid deployment force of division size with one brigade being amphibious assault capable. (95:36) These are relatively stable nations; however, other parts of the world are faced with terrorism, civil war and insurgencies.

El Salvador has been torn by guerrilla warfare for over ten years, Lebanon for even longer. Columbia continues to battle the narcotics cartel while other South American countries face left wing insurgency and terrorist threats. These are only a sample of the low-intensity conflicts plaguing the Third World at this time. No one can expect to find any cessation of low- and mid-intensity conflicts over the next 30 years.

As ideological confrontation disappears the entire complexion of the world changes as well. The Soviet Union and the exportation of communism in general served as the focus and incentive for close alliances between the United States and scores of nations throughout the world. The loss of what the Navy refers to as "...as a single galvanizing threat..." places the entire alliance system in a new light. (28:4) Nations no longer feel threatened by the communist monolith; ideology no longer threatens governments. Several observers have noted that national issues are now coming to the forefront for most nations. GAO analyst, Elizabeth Guran, believes that in Asia and the Pacific economics, national politics, and social issues have become much more important to nations in this region than international defense concerns. (49:56) Writers, analysts and political and military experts seem to agree that regional hegemony, economic issues, poverty, terrorism, drug trafficking, nationalism, insurgency, national politics, ethnic and religious unrest, etc. will be the dangers facing many

nations in the future. They also agree that, because many of the threats are internal and less common to all nations, there will be more of a tendency for parochialism and less willingness to become involved in problems that do not present an immediate threat. From a security standpoint there will be less of a tendency for nations to look to the United States for their security. Thomas Etzold warns, "...domestic politics and diverging threat perception make it increasingly difficult to harmonize or cooperate in security affairs." He goes on to say that the U.S. will be on its own in regional issues "...especially when there is some possibility of military action." (39:20-21,23)

Military bases on foreign soil have become a real issue for the United States. Not only will the presence of U.S. bases diminish, also, the willingness of host nations to allow American forces to use these bases as staging areas for military operations will probably be curtailed as well. Many nations may be reluctant to allow U.S. bases within their borders because it is seen as a threat to their national identity. (49:56) (15:180) No national leader wants to be viewed by his people as a puppet of the United States. Some nations may become subject to regional pressure to remove or prevent U.S. bases from being established in the area. With the ongoing controversy surrounding the continued presence of U.S. bases in the Philippines, possible regional discord is bubbling in Southeast Asia. Singapore has considered allowing the U.S. Navy basing privileges there. Indications are that Malaysia, Brunei, and Indonesia may oppose such an occurrence. Malaysia has gone so far as to suggest that it may not allow U.S. aircraft within its airspace. (With the close proximity of these two nations this closure would seriously hamper U.S. air activity within Singapore.) (94:37)

United States participation in the Vietnam war had a significant effect on the population and its leaders. Its

failure to stop the fall of that country to communism and the strife the war caused within the U.S. brought the Nation to question whether it should ever be involved again in foreign internal conflicts. Despite the determined efforts of many people within and outside the government to preclude any future involvements, the United States has continued to find itself acting as the world policeman. Most recently with the political changes in Eastern Europe and the upheaval in the Soviet Union, America is now viewed as the only true world power. And being at the top of the heap causes the U.S. to be seen as arbiter, savior and target at times. Unless this country suddenly makes a distinct about face and attempts to become isolationist, U.S. involvement in overseas entanglements will continue. One need only consider President Bush's attempt to remain aloof from the Kurdish uprising in Iraq and then the subsequent involvement of U.S. forces in relief operations to know that world pressure will continue to drag America into foreign entanglements despite its best efforts to avoid them.

Ever increasing international economic interdependence serves to further confirm the necessity for U.S. involvement in other nations affairs. American dependence on foreign oil and other resources as well as dependence on foreign imports and exports necessitate U.S. efforts to maintain the free flow of goods to and from world markets. The sea is the primary medium for this flow with 99.7% of our overseas export and import tonnage moving this way. (16:405) The strengthening of the United Nations' active role in the mediation of disputes will probably continue as well. U.S. economic, political and military strength will encourage the U.N. to turn to the United States for assistance in defusing potential military and political hotspots. All of this will occur on a globe that has continued to "shrink" because of improved technology. Instantaneous communications and news reporting make everyone an immediate spectator to world events. (ABC correspondents breaking into the nightly news

to report and show U.S. bombing of Baghdad as it occurred probably only foreshadows what is to come in the future.)

The expansion of democratic governments throughout the world coupled with the ready availability of information about democracy and economic well-being can only further the desire to attain these rights among Third World populations. So rather than see a reduction of world strife as a result of the end of the Cold War the next 30 years will probably see an increase. This increase may be on a much lower scale but may be even more frequent and simultaneous. Since World War II, the world has seen an average of 25 international and national conflicts raging annually. (61:46) From 1946-1982 there were about 250 occasions in which U.S. military forces were used on the world scene, with naval forces participating 80% of the time. (99:8) Of these over 200 incidents 85% occurred outside of NATO. (61:46) Interestingly, Brookings Institution studies indicate that naval participation at the 80% level will probably continue. (43:119) Certainly, if most of the world's people live within 50 miles of the sea this is a reasonable estimate.

For the United States military this all means a greater involvement in operations outside of its traditional Cold War areas of concern. American focus on Central Europe and war with the Warsaw Pact countries is no longer viable. The technology, strategy and force structure that met this focus are not appropriate for Third World conflict. The American military must restructure its forces in order to meet uncertain contingencies in a myriad of Third World locales. It must be prepared to do this simultaneously at widely dispersed points. During the Gulf War buildup alone U.S. Marines were called upon to conduct two noncombatant evacuation operations in Liberia and Somalia. Luckily, these were in the immediate vicinity of forces already deployed in the Mediterranean and Persian Gulf. Could the Marine Corps have responded to a call to evacuate U.S. citizens from Santiago, Chile in a timely fashion? Would

the U.S. Navy have had the amphibious ships to get the Marines there? Consider the possibility of a military junta taking over in Chile and refusing to allow U.S. citizens to be extracted peacefully. A military takeover occurred in Thailand during the Gulf crisis; imagine if civil war had resulted in that country with reprisals being threatened against U.S. citizens. Could U.S. Marines been dispatched from Saudi Arabia to conduct an evacuation, perhaps in extremis?

This may all be a worse case scenario and one may have to accept that at least one of these contingencies would have to be resolved by some means other than military. However the American people expect that their military forces are structured and equipped to meet a number of possible contingencies when they arise. And to ensure the optimum capability within the manpower and budgetary constraints the military must use the worse case scenario as a benchmark on which to focus its restructuring efforts.

There are a number of parameters within which a Third World military strategy and force structuring must be developed. As a number of military writers have noted U.S. overseas basing and overflight rights are dwindling. Operation El Dorado Canyon was significantly hampered by denial of overflight rights by France to the Air Force F-111's during their attack on Libya. This was a relatively small contingent of aircraft on a one time mission. Consider the impact of denial to overfly even a few European or Middle Eastern countries during the Desert Shield buildup. Hundreds and probably thousands of air miles per aircraft would have been added to the airlift of personnel, equipment and supplies, greatly increasing the time and logistical burden to the throughput. Consider, too, if the U.S. had lacked bases in Europe to support this same buildup. Operation Just Cause in Panama would have probably been significantly different in terms of the concept of operations and the forces employed had the U.S. not already

had significant forces and facilities available to it in Panama prior to the start of the operation.

As mentioned earlier, political reality offers a situation in which overseas bases available to the U.S. as staging areas for future deployment of troops will be curtailed. The ongoing negotiations with the Philippines presages an important change in U.S. capabilities in the Western Pacific. Our two largest overseas bases are located in this country. All indications point to the loss of Clark Air Base and Subic Bay Naval Base by the year 2000. Even if the U.S. were allowed to maintain these bases, the political atmosphere in the Philippines may be sufficiently anti-American to preclude their use as staging areas for U.S. military operations that the host nation finds threatening or at least politically unpalatable. Anti-American sentiment in South Korea and Japan could conceivably create similar situations to that of the Philippines.

Again, with the loss of a common threat, i.e. the Soviet Union, many nations may no longer believe in the necessity of close military relations with the United States. To further compound the situation economic relations may create new alliances which replace the traditionally close ties the U.S. has had in the past with many nations. New economic ties between Third World countries may create situations that strain or at least hamper relations with the United States. On the global economic and political scene the United States, China, Japan, and the European Community may be the principal powers with Brazil, India, and South Africa as regional powers. (88:64)(15:179) The foregoing political and economic possibilities are presently only conjecture. Certainly these are important considerations for U.S. civilian leadership and it is a reasonable expectation that they will attempt to create a situation which places the U.S. in the best possible political and economic situation.

However, United States military leadership must remain

cognizant of political and economic possibilities that may make its tasks much more difficult.

The reduction of forces in Europe reduces the proximity of these forces to possible trouble spots in the Middle East and Southwest Asia. Many of these units will be deactivated through force reductions or at least returned to U.S. soil, thousands of miles from the Mediterranean and Persian Gulf areas. The loss of the Panama Canal and the military bases there reduces U.S. force proximity to Central and South America. Again, the loss of bases in the Philippines reduces our capabilities in the Western Pacific. All of this spells a loss of U.S. military presence and proximity to Third World trouble spots should they develop. This calls for a dramatic change in the U.S. military force structure. Concomittantly, it calls for an increased strategic lift capability in order to deploy forces rapidly thousands of miles from the closest U.S. land bases and have them ready to fight when they arrive.

There is a common recognition among U.S. defense leaders that there is a need for change across the entire spectrum of defense. Strategy, force size, weapons, force structure, roles missions, and geographic focus must be reevaluated and modified to face an entirely different threat. The general consensus is that the United States has changed its national strategy for one of containment to one of stability. With a world as volatile as has been predicted this will place a great deal of pressure on the military. As James Schlesinger points out, "...the United States will have to be prepared cope with a multitude of diverse contingencies--and often more than one at a time. Perhaps more than ever before, our forces will, in effect, be providing insurance against the unknown. (11:4) Secretary Cheney in his 1990 Annual Report says, "With a shrinking overseas base network and fewer nations willing to allow U.S. access to their facilities, the ability to project power extended distances grows more difficult. The

capabilities of our maritime power-projection forces have therefore become even more vital to our security." (18:40)

The U.S. Navy and Marine Corps, with their inherent capability to project power through forward deployment aboard ships, believe that they are at the forefront in their ability to contribute to this new strategy. Ronald O'Rourke opines that perhaps the new theme for the Navy in "the forces of choice" as the replacement for the Cold War "Maritime Strategy." (68:168) Certainly, the Marine Corps and Navy are advertising themselves as such.

Admiral Stansfield Turner, testifying before Congress in 1985, stated his contention that the number one national military objective should be intervention which he defined as deploying forces to the Third World, where U.S. forces are not positioned, in order to defend U.S. interests.

(12:224) Interestingly, Secretary Cheney, when discussing the Department of Defense (DOD) FY 1991 budget before the House Appropriations committee, stated five budget priorities: people, nuclear forces/strategic defense, deployable conventional forces and continued maritime superiority. (16:47-48) In his proposed testimony on FY 1992-93 budget his second priority has now become power projection/mobility. (19:4) Secretary Cheney says, "The Central Tenet of America's global strategy is and should remain: to deter aggression against our interests..."

(16:46) U.S. focus then is now on power projection capabilities and no longer on strategic nuclear deterrence.

The Navy is apparently recognizing the change, perhaps reluctantly. Based on Congressional testimony in 1990 the Navy saw their number one warfare priority as anti-submarine warfare (ASW), an obvious focus on the Soviet Union.

(16:397) In fact, at the time they went so far as to claim that there was no need to change their force structure despite a changed world situation. A House Armed Services Committee point paper saw it differently, saying that the new global environment calls for more surface ships and less

attack submarines. (68:168,171) As Ronald O'Rourke points out, the Navy has subsequently modified their position to one emphasizing force projection capabilities so as to facilitate the introduction of joint U.S. forces into troubled areas. (68:171)

Certainly, the Navy and Marine Corps stand on relatively firm ground concerning their role in power projection, at least on the surface. According to Secretary Cheney, "Power projection forces are increasingly important elements of the U.S. strategy. These seabased forces--primarily aircraft carrier battle groups and Marine expeditionary forces--provide a highly mobile and flexible deterrent along with warfighting capabilities of vital importance. (18:40) Why are these forces so important? There are two important reasons for this. First, naval forces can project power; a carrier battle group and a Marine amphibious force can conduct operations in the air, under the sea, on the surface, and can place Marines on the ground. Secondly they can provide a presence without being committed. As General Gray has reminded, in order to have influence a nation must have presence. (71:20) "Naval forces can be deployed without committing the nation to battle, and...can be used in a crisis to signal U.S. concern without committing allies, or, in some cases, even obtaining their concurrence." (3:43) Many writers, strategists, and pundits believe that naval forces are ideal for the U.S. strategy of stability, especially with reduced overseas access and the global nature of the threat today. While this may be so, the Army and the Air Force are not prepared to sit by and watch a major shift in emphasis to the naval services.

The recent war with Iraq has validated many DOD programs which until now were based on planning models and relatively minor exercises. Certainly, the Maritime Prepositioning Force concept has proven its worth. The Army Fast Sealift Ships, Afloat Prepositioning Ships, strategic sealift and airlift all proved effective, although with

unequal amounts of success. Essentially, this war validated the Rapid Deployment Joint Task Force (RDJTF) concept initiated by President Carter in the late 1970's. Focused on Southwest Asia it was intended to introduce forces into an area prior to the start of hostilities in order to have forces in a region where there was no permanent U.S. presence. Ten years later, its successor, the Central Command, proved its effectiveness. Of key importance here is the fact that the forces were introduced in a benign environment with adequate port and airfield facilities available for the debarkation of troops, equipment, and supplies. This war has clearly demonstrated the importance of strategic lift, both air and sea, and prepositioning.

None of the services have failed to grasp the importance of strategic lift. Certainly the Air Force will use it to garner support for its C-17 program. In 1990, General Vuono wrote that the Army was focusing on NATO and the strategic air and sealift and the need to improve port infrastructure. Although it has yet to be determined how much the NATO focus will really diminish, strategic lift will not disappear in the collective mind of the Army, especially after Desert Storm and with the proposed reduction of forces in Europe.

Congress has taken an active interest in strategic sealift for several years, perhaps even more interest than DOD. There has been some apparent consternation within Congress because of a less than vibrant effort by DOD to develop U.S. strategic lift capabilities. (84:12) The Secretary of Defense recently proposed to use \$592 million of sealift funding to complete the purchase of M-1 tanks and F-15 fighters. Subsequently, Congress has provided \$1.275 billion for strategic sealift. As yet, there is apparently no specific action to spend the money before further study is made by DOD. There is also Congressional interest in fast sealift ship development. One can reasonably predict that strategic shipping may become an extremely important

issue for the services especially when the evolving U.S. strategy is calling for the rapid deployment of forces. John Roos in a Nov. 1990 article implies that the Army will take advantage of Congressional funding for strategic sealift ships. (73:19) In 1983 Jeffrey Record warned that any reduction in the commitment of U.S. Army forces in Europe would cause the Army to latch onto the rapid deployment mission for institutional survival. (5:55-56) What does this mean for the Marine Corps? It already has 3 squadrons of MPS with a practiced capability to employ them. As Marine Major Joseph Holzbauer warned in a 1980 article discussing the RDJTF and MPS, both the Marine Corps and the Army will have the same capability. Further, he expressed concern that MPS would take away from Marine amphibious assault capabilities and funding. (53:37-38) Perhaps he was right! At the time the Navy could lift 1.15 Marine Expedition Forces (MEF) by amphibious ships. Today, that capability is being pared to 2.5 Marine Expeditionary Brigades (MEB)

In 1964 the Army first tested the MPS concept using an Army brigade. At the inception of the RDJTF concept the Army presented plans for an MPF program along with the Marine Corps; however, the Marine Corps plan was selected. Presently the Army has 8 SL-7 Fast Sealift Ships which can move an Army mechanized division's equipment to Europe in 5 days. The Army is not a neophyte to maritime prepositioning. Considering the new U.S., the Third World threat, and Congressional interest in strategic sealift and fast sealift ships, the Marine Corps may soon find itself in a position of actively competing for missions in the MPS arena. It is significant to note that the Marine Corps can deploy more forces by MPS shipping than it can by amphibious lift, the supposedly traditional Marine Corps capability. What is occurring is a slow decline in the Marine Corps' and the Nation's amphibious assault capability. This has not been lost to Senator Nunn, who was looking closely at the size of the Marine Corps in contrast to the amphibious lift

available to it in 1989. (75:179) All of this may represent a serious threat to the Marine Corps' size, roles and missions and there is little support from the Navy.

In 1990 a Navy official noted that the Marine Corps was calling for the need to lift two MEFs while the Navy was intent on one MEF and one MEB. Another official stated that the Navy was unconcerned as to whether the troops they provided amphibious lift to were soldiers or Marines. One observer says that the deactivation of two battleships means, "...tacit withdrawal of support for amphibious mission..." because of the ships importance in providing naval gunfire support for landings. (91:60,64) While the other services may be anxious to take on the MPS capability or are indifferent to amphibious assault, it is imperative for the Marine Corps to actively promote this capability, amphibious assault, for its sake and for the Nation's as well.

The British learned this lesson in the Falklands and also demonstrated that amphibious assault is not an obsolete capability. While the Marines afloat in the Persian Gulf were never employed in an amphibious assault, their very presence was instrumental in holding several Iraqi divisions on the coast. This reduced their defensive capability along the Saudi border and probably facilitated the Army sweep to the west. Liddell Hart perhaps put it best when he wrote: "Amphibious flexibility is the greatest strategic asset that a sea-based power possess. It creates a distraction to a continental enemy's concentration that is most advantageously disproportionate to the resources employed." (51:25) The Iraqis had literally months to prepare to defend against an amphibious assault along a relatively short coastline and there was virtually no opportunity for surprise at the operational level. It is essential that the wrong lessons are not drawn from this war. One right lesson is that the Iraqis considered an amphibious assault significant enough to position as many as 8-10 divisions to

defend against two Marine brigades.

MPF is an important capability no matter who is tasked with doing it. However, the U.S. "...should be concentrating our efforts on ensuring we have the capability to employ a credible force in distant areas of the world, not just deploy there. (87:27) It is imperative that port and airfield facilities are available for the off-load of these forces and equipment. Even when MPS off-loads across the beach the forces to employ the equipment still must be flown in to link up with the equipment. In future scenarios the United States may find itself engaged alone in a conflict with another state. How will it get its Marines and Army prepositioned forces into the conflict? As Max Hastings points out, the British had planned for years to deploy forces into Europe anticipating entry into a friendly environment; they did not find this to be the case in the Falklands. (4:90) General Barrow, in testimony before Congress in 1980, warned that MPS was not a panacea. The requirement for amphibious assault is still required, not in spite of, but in order for MPS to be off-loaded. (5:65)

Admiral Turner lobbied for amphibious capability to Congress during his 1985 testimony. He rated amphibious assault capability as the priority naval capability to support intervention. He bases the need for this requirement on two assumptions: lack of overseas bases and that amphibious assault will allow the U.S. to forcibly enter a nation. He warns that without the ability to launch an amphibious assault we are courting some significant problems. He advised, some six years ago, that the U.S. needed more amphibious ships in order to spread them throughout the world because of the unpredictability of where they may be needed. (12:223,226,230-31) Why, then, with all of this expert testimony has Congress not seen the importance of an amphibious assault capability?

Marine Colonel J.J. Grace, writing about amphibious warfare may have the answer: "One result of this neglect by

the major services is that civilian policy makers who, at best, have a confused and incomplete picture of amphibious warfare, are inclined to dismiss the subject as an anachronism that survives only because it is the sole raison d'etre of the Marine Corps, itself an organizational anomaly." (1:404)

It is, therefore, essential that the Marine Corps for the sake of the Nation actively press for enhancement of the Nation's amphibious capability. It must proselytize to Congress, DOD, and the other services on the importance of an amphibious capability. In 1975 the infamous Brookings Institution study came out questioning the viability of amphibious assaults in the modern world. This study may have had a significant and permanent effect on the policy makers in Washington. It may have contributed to the Marine Corps' energetic assumption of the MPF and Norway missions. However, a closer look at this study reveals that it actually recommended the very mission the Marine Corps should be striving for in today's Third World threat environment. It says, "The United States Marine Corps...is well suited for amphibious assaults in the Third World..." (2:66) Some Congressional leaders do understand the importance of Marine amphibious capabilities. Senator McCain notes in a 1990 Armed Forces Journal article that out of 200 plus military operations since World War II amphibious ships and Marines were involved in 54% of them. He writes, U.S. "...power is largely dependent on its ability to project power by sea and air, rather than through the deployment of massive land forces." (61:46,47) He believes, "Our key power projection forces include our carrier forces, the Marine Corps, units like the Army's XVIIIth Corps, the tactical and conventional bomber forces of the Air Force, and the necessary strategic mobility. (17:369) It is imperative then that the Marine Corps garner support where it can, educate the Nation's civilian and military leadership and reassert the importance of amphibious assault

for the Nation's defense. One of the most important elements it must focus on is developing a solution to the debilitating shortage of amphibious shipping if it is to meet the Third World threat.

"...[A] maritime strategy for an island nation operationalizes an observation made by a famous naval officer that 'there is a lot more you can say here and do there when your forces are there, than you can say or do when your forces are here.'" (16:405)

"The amphibious capability of the Marines in tandem with the Navy gives us a capability to have a potential ground force presence wherever we have a Navy presence. And that is a great deterrent. Lying offshore, ready to act, the presence of ships and Marines sometimes means much more than just having airpower or ship's fire, when it comes to deterring a crisis. And the ships and Marines may not have to do anything but lie offshore. It is hard to lie offshore with a C-141 or C-130 full of airborne troops."

General Cohn Powell (98:17)

AMPHIBIOUS SHIPS FOR THE FUTURE

"A nation may have the most formidable of forces with the most exquisite means of strategic mobility, but if the combination of the two cannot ensure successful entry except by invitation, the nation has only a reinforcing capability." (87:30)

The United States for the foreseeable future is going to be on a new playing field as it moves into the twenty-first century. The rules will be different, the players and their capabilities will be different and the U.S. may find that it is the only member on its "team." Also, in terms of conflicts in which it may be involved, it may have a significantly increased schedule of games. With the loss of overseas bases and overflight rights, the increase in diversely spread threats to American interests abroad and the need to "go it alone", the possession of mobile forces capable of making forcible entry onto another nation's soil will probably increase. With the multitude of U.S. trading partners and the increasing economic competition, globally, it would be naive to believe that the U.S. can expect to avoid confrontations in the future. Japan's drive for increased industrial capability was one of the contributing factors to our entry into World War II. Iraq's invasion of Kuwait was certainly economically motivated. And our entry into the fray was probably as much predicated on oil economics as it was for "a new world order." American economic decline after at least a century or more of vitality is sure to make the entire world a much more threatening place for the U.S. Ironically, as the world becomes more threatening because of growing instability, the U.S. is becoming increasingly unable to afford the military forces to react to these threats.

Everyone is well aware of the significant reduction in U.S. forces and the DOD budget. For the Marine Corps, not

only is it facing force reductions it is also facing a reduction in the capability that America will probably need much more in the future—an amphibious entry capability. Events in Somalia, Liberia and now in Bangladesh have all seen the use of Marine amphibious forces. While these operations continue to publicize the role of amphibious shipping with Marines aboard, this shipping is being whittled away within the Pentagon. It is the victim of budgetary constraints and a lack of support among key policy makers. Certain acquisition programs are viewed as much more important and are sacrosanct. This is not the case for Navy "amphibs." Within the Navy, aircraft carriers, nuclear submarines and advanced fighters are much more flashy and attractive. Within DOD, M-1 tanks and F-15 fighters tend to attract the funding earmarked for strategic sealift. All of the U.S. advanced military hardware has to get there before it can do its job--an apt lesson from the Gulf War.

Where does the Marine Corps stand in terms of the amphibious lift available to it? Officially, lift capabilities are being based upon the requirement for 2.5 MEB assault echelons (AE). (According to NAVMC 2710, it takes an additional 11 commercial ships to lift the assault follow-on echelon for each.) In 1990 the Marine Corps was still emphasizing the need to lift 2 MEF AE. According to Lt.Gen. Mundy, who was then the Deputy Chief of Staff, Plans, Policies and Operations, the Marine Corps was using this factor as a lift basis to meet the needs of the standard Marine Expeditionary Unit (MEU) deployments plus a deployment in the Caribbean. This essentially modeled the Navy factoring which calls for 14 carrier battle groups in order to meet the rotational requirements for four groups afloat. (91:60,64) The Navy's intent is have a ship in port two days for every day that it is at sea. On any given day approximately 30% of the amphibious ships are not available to lift Marines. 20% are not available because of maintenance requirements and another 10% are unavailable due to training and other missions. (30)

Presently, there are 63 amphibious ships in the Navy, and by the end of this fiscal year there will be 65. From then on there will be a drop in the number of ships so that by FY07 there will be 38 ships and by FY15 there will be only 36 ships. How many Marines can be transported by these vessels? By the end of this fiscal year approximately 42,600 Marines could go aboard ship, by FY07 the number drops to 34,000 and by FY15 it is at about 25,500. Troop lift is not the only issue. The Marine Corps has basically five lift requirements: troops, vehicles, LCACs, cargo, and air spots. Despite the goal of lifting 2.5 MEBS, Navy shipping well fall short of that capability by the mid-1990s in the areas of troop, vehicle, and air spots and will not achieve that goal in all of these areas until about 2010.

(30) Certainly this is not an irretrievable loss; a new focus on this requirement could turn the situation around with the acquisition of additional ships of present or presently proposed design. However, if an entirely new ship with significantly new technological design were sought it could take approximately 23 years for it to be operational.

(45:132) Another words, if a radical change in amphibious ship design and capability was envisioned it would probably not be operational until FY14 if development were to begin today. Cost is the driving factor for the scarcity of proposed shipping both in terms of the cost of the ship itself and the crew to man it.

The cost of an LHD1 is about \$1 billion each, LSD49's are approximately \$235 million per ship, and the proposed LX has been estimated at an initial cost of over \$600 million (with subsequent vessel's estimated cost at about \$480 million.) (30) These costs are such that they begin to compete with other higher technology weapons systems like advanced tactical fighters. etc. So while the Marine Corps prides itself on giving the Nation its "biggest bang for the buck," its requirements indirectly can be very expensive. And when the Navy is placed in a position to have to choose

between "'gators" and other more attractive acquisitions, amphibious ships are given short shrift. The Marine Corps understands the importance of its amphibious capability; however, fiscal constraints and indifference outside of the Marine Corps place this capability in jeopardy. For the short term what can the Marine Corps do that will relieve the shortfalls?

First Marines must establish some realistic deployment goals. The Marine Corps has 3 MEFs within its force structure at this time. With the proposed troop reductions which may place Marine Corps end-strength at perhaps 159,000 Marines it will be approximately a 2 MEF-capable force. Presently, it can deploy approximately one MEF (3 MEBs) using the MPF concept; however, these forces require a benign environment in order to reconstitute for employment. This is not an amphibious assault force. In terms of an amphibious capability it can deploy and employ approximately 2 MEBs. (This assumes that the normally deployed MEU(SOC) forces are left alone for contingencies in the Pacific and the Mediterranean—a reasonable course in a volatile Third World threat environment.) It still has a third MEB with no amphibious ships to get it to the scene of a possible conflict. Where can the lift come from?

Perhaps the Marine Corps should look at a readily available source of lift that already exists and has a strong advocacy in Congress today--strategic sealift ships. There are approximately 700 container ships in the U.S., today. (7:41) Between 1981 and 1982 the U.S. Navy purchased and had modified 8 container ships. These ships were given the designation TAKR, Fast Logistic Ship. They were purchase to provide for the speedy movement of the equipment and materiel of an Army mechanized division. They have the capability to sail at 33 knots and can travel from the United States to Europe in five days. During Operation Desert Shield one ship moved from Savannah, Ga. to Saudi Arabia in 14 days. They have a roll-on/roll-off capability

and can unload themselves. Through the use of devices called "seasheds" and "flatracks" they are able to carry vehicles and equipment that will not fit into containers. Also, these devices can be used to create decks within the container ship. At a cost of \$752.2 million in FY82 dollars these eight ships were purchased (with 4000 containers and associated equipment) and had the necessary modifications made to them. (70:46) Assuming a 4% average inflation rate this would probably cost approximately \$1.11 billion today, which is about 10% more than the cost of a single LHD. In their present configuration these would provide viable strategic lift for a MEB's equipment; however, they would be nothing more than an MPS squadron. An amphibious assault ship requires at a bare minimum quarters for embarked Marines, air spots for helicopters, and a launch capability for AAV's.

In the late 1970s and early 1980s the Navy began experimenting with a modular VSTOL deck to be placed aboard container ships to assist in sea control for strategic shipping defense. This system was called ARAPAHO. It consisted of a modular flight deck with maintenance vans, quarters for personnel, a fueling facility and an arrangement for a small hangar for approximately 10 helicopters or Harriers. The system could be loaded aboard a ship in approximately 4-5 hrs. and be operational in about 14 more hours. Additionally, it has been suggested that container ships could be outfitted with habitability containers for the transport of troops with an estimate that 4000 troops could be transported this way on one ship.

(70:49) (1:394,400,414,416) It is not inconceivable that containers could be modified to become living quarters for embarked Marines. Additionally, seasheds, which are designed for oversized cargo could be modified for use as galleys for feeding and for head facilities. Water, electricity and heating/cooling hookups would have to be designed to link in with ship systems. Certainly, the

systems designed for ARAPAHO proved the viability of this. Additionally, communication vans which exist in the Marine Corps today offer the possibility of taking advantage of existing technology both for environmental habitability and for communications. Existing technology also offers an opportunity for the use of the roll-on/roll-off ramps to be used for the launching of AAVs instream. The Marine Corps required the capability of launching AAVs instream in sea state 3 for their MPS ships. Also, modifications are being considered at this time to MPS lighterage that would allow them to be used for the loading of LCACs. (26) Also, the Maritime Administration has proposed the design for a semi-submersible container ship which could be used to carry landing craft. (57:18-19) Perhaps, if these ships possessed the same speed capabilities that the TAKR ships possess, these could be used to transport LCACs and AAVs with embarked Marines occupying quarters containers on the weather deck.

The very speed of these ships would allow for some austerity in terms of habitability. At speeds ranging from 27-33 knots these ships could cover between 650 to 800 miles per day. Depending on where the forces embarked aboard the ships and where they were expected to make an amphibious assault, they may be subjected to only a few days under somewhat less than palatial living conditions. This brings up the point of where these ships may be homeported.

Perhaps consideration could be given to prepositioning these ships much like the MPF ships are now located. There are a number of considerations that can be taken into account. First, conceptually, these should be viewed as contingency force ships. Marines do not have to be continually embarked aboard them. Their very speed allows them to move relatively quickly to possible military flashpoints. They could be homeported in Diego Garcia, Guam, or on the East or West coast of the United States. The fact that they are container ships make them essentially

empty shells. Everything that turns them into an amphibious assault ship is essentially containerized. These ships can be "built" to match the contingency. A humanitarian mission may require ships outfitted for helicopter operations and combat service support-type activities. An air support "package" for an already engaged MEU(SOC) could be built using Harriers on ARAPAHO modular decks. Obviously, the amount of pre-loaded modules would dictate the amount of time that it would take to prepare these ships for sailing. Also, the amount of "building" that could occur would be dependent upon the space available in the port to stage the particular modules and the amount of equipment the port had to assist in the loading. Another consideration is the protection of the supplies and equipment that serve as the warfighting gear of the Marines.

MPS ships have environmentally controlled storage spaces to protect equipment from humidity and weather damage. This is probably one of the most difficult problems to resolve. Large permanent storage facilities would have to be built and manned to keep the equipment in fighting condition at all times. Basically, it would have to duplicate the arrangements currently used in Norway. Start up and construction costs would have to be investigated to determine feasibility. These would be one-time costs, however. Annual costs could be recouped from the present funding of the Norway prepositioned equipment because that equipment would now be used to outfit the contingency force container ships. These costs are presently \$5.1 million annually. (30) This equipment would no longer be needed in Norway now that the primary threat to U.S. interests is located in the Third World vice focused on the Soviet Union.

This entire concept attempts to take advantage of already existing technology and concepts. It allows for the use of a type of ship that has already proved its capabilities in the Gulf War, the TAKR. The first ship was loaded in 4 days and arrived at its destination in 14. It

makes use of a system for outfitting a container ship with an air support capability that received at least some preliminary testing, ARAPAHO. It employs the prepositioning concept that MPF also proved to be viable in the Gulf War. It also makes use of the MPF requirement for the offload of AAVs instream from a stern ramp. It uses the equipment no longer needed in Norway to meet more immediate threats elsewhere. This concept makes use of shipping that already has a great deal of Congressional interest, strategic sealift. In fact these same ships could be used subsequent to the off-load of their Marines for strategic sealift if the operation proved to be of long duration.

Because of the possible locations these contingency ships could be located at, strategic airlift would have to be used to link the Marines with their "amphibious ships" and the aviation fly-in echelon would still have to fly to their ships. This is no different than what currently occurs with MPF and the Army SL-7 ships. The difference lies in that during the ten-day off-load period that the MPF is building up its combat power the Marine brigade aboard the contingency ships are steaming to their assault beaches fully prepared to "kick" down the door" when they get there.

One final point must be considered. What about self-defense for the ships and beach preparation? In terms of self- defense the ships would have to rely on Marine aviation assets for that if no Navy surface vessels were available for escort. Perhaps some sort of ship's defense system could be outfitted on the ship as well. Unlike the MPF these ships would be manned by Navy personnel. With approximately 43 personnel to crew each ship this would be of minimal cost to the Navy. Also, additional Navy personnel could be flown in with the Marines to man the ships self-defense weapons. (1:415) For beach preparation the following considerations are offered. If the concept of over-the-horizon assaults comes to fruition, beach preparations may no longer be necessary or desireable.

(2:30-35) (1:401) If the Marine Corps does field a multiple launch rocket system, perhaps it could be loaded aboard LCACs for movement close enough to the beach to conduct a preparation from the LCACs. Or perhaps a FOG-M type of weapon could be launched from the LCACs. The point is that such concerns as these are important but do not make this contingency ship concept infeasible.

For the more distant future Marines may look to an idea that is beginning to receive consideration by the Navy. It is the mobile sea base concept. Patterned after off-shore oil drilling rigs it would be a man made island capable of being towed at 8 knots. It would serve as a ship and MPS replenishment point; it could also provide supply and maintenance sustainment to an Army division. The base would also have a 3000 ft. runway for aircraft. According to planners it could be towed to a point off the coast of a trouble area to provide support to forces positioned there. (90:43-44) Such an installation could possibly do away with the need for amphibious ships. These platforms could be strategically placed throughout the world with surface effect craft and tilt-rotor aircraft staged, waiting for Marines to fly in, link up with their tactical lift and conduct an amphibious assault without ever having to see one 'gator!

"The value of a preemptive amphibious strike, swiftly executed in a crisis, may do more for deterrence or containment than a month of verbal saber-rattling." (31:424)

Conclusion

"In war, negotiations have become a substitute for victory. This suggests that the visibility, reliability and initial shock power of forces are to be valued more highly than long-term staying power." (93:21)

In the last few years there has been a dramatic change in the world, politically, economically, and militarily. Great powers have seen their strength weaken. There seems to be a feeling of greater equality among nations with each showing less reticence about going its own way even against the global powers. While ideological revolution brought conflict in the past, in the future upheaval will occur because of societal discord. Civil wars will erupt out of ethnic and religious issues, poverty, and politics. International conflicts will rise out of nationalism and economic motivation. There will be wars occurring in widely dispersed points on the globe, so much business as usual. One important difference will be that old alliances will not have the strong binding effect that they once had. The United States will find itself on its own in dealing with military conflicts, without allies opening their doors to U.S. forces as they make their way to potential trouble spots. American military planners will find it much more difficult to accomplish missions because of lost overseas bases and overflight rights. They can no longer expect benign ports to which they can deploy. American forces are going to have to deploy fully prepared for employment when they arrive at the conflict.

Many pundits and policy makers have come to believe that the amphibious assault had gone the way of the cavalry charge. In the future the amphibious assault may be the only way that American forces can gain entry into a country. Consider Panama without thousands of prestaged troops on the ground and free access to in-country airfields. Consider

the Iraq War without the available ports in Saudi Arabia. One then has a reasonable scenario for the next conflict. The Third World threat will present the possibility of simultaneous conflicts occurring at widely dispersed points. When the majority of the world population lives within 50 miles of the sea one can feel assured that most enemies will avail U.S. forces with a coast to assault.

Despite the threatening times outside of the Nation's borders, the U.S. military is facing difficult days on its own soil. Shrinking budgets are making the military's job that much more difficult. This is where the Marine Corps must be its most skillful advocate. It cannot make amphibious assaults without amphibious ships. Unfortunately, ignorance and indifference towards amphibious ships and landings are likely to remain until policy makers come to realize that the U.S. no longer has a credible forcible entry capability. The Marine Corps can no longer conduct a MEF sized amphibious assault. It can with 2.5 MEBs. Malaysia has one amphibious brigade. The Marine Corps must educate its civilian leadership on the importance of amphibious lift. Until that time it must be innovative in trying to solve its lift shortfall problem. The Third World is not the Soviet Union and the next war will not be like the Cold War.

"Most naval strategists agree that, particularly in this era of glasnost and perestroika, more emphasis will be placed on amphibious forces, which are ideally suited to deal with Third World conflicts along littoral nations."
(40:72)

BIBLIOGRAPHY

BOOKS

1. Merrill L. Bartlett, ed. Assault From the Sea. Annapolis, Md.: Naval Institute Press, 1983.
2. Martin Binkin and Jeffrey Record. Where Does the Marine Corps Go From Here?. Washington, D.C.: The Brookings Institution, 1976.
3. Keith A. Dunn and William O. Staudenmaier. Strategic Implications of the Continental Debate. New York: Praeger Publishers, 1984.
4. Max Hastings and Simon Jenkins. The Battle for the Falklands. New York: W.W.Norton & Company, 1983.
5. Jeffrey Record. The Rapid Deployment Force: and U.S. Military Intervention in the Persian Gulf. Washington, D.C.: Institute for Foreign Policy Analysis, Inc., 1983.
6. Harlan K. Ullman and Thomas H. Etzold. Future Imperative: National Security and the U.S. Navy in the Late 1980s. Washington, D.C.: Center for Strategic and International Studies, 1985.

PAPERS, STUDIES AND SPEECHES

7. Lt.Col.R.E.Cadorette and Lt.Col.H.A.Curry. "Strategic Mobility:Can We Project Our Military Power?" Carlisle Barracks, Pa.: U.S.Army War College, 30 March 1988.
8. David Garner. "Desert Shield Desert Storm". Bethesda, Maryland: Logistics Management Institute, March 9, 1991.
9. Gary Michael Holst. "Potential Naval Lessons Learned From the Falkland Islands War". Monterey, California Naval Postgraduate School, 1982.
10. Vice Admiral Henry C. Mustin, USN(RET). "Joint and International Planning for Combat: Are We Continuing to Kid Ourselves?". San Diego, California: Proceedings of the Second Annual United States Naval Institute Conference and Industry Exhibition, 6-8 September 1989.
11. James R. Schlesinger. "An Introductory Study on the Role of Maritime Power in an Uncertain World" Oct. 15, 1990.

GOVERNMENT SOURCES

12. U.S.Congress. House. Armed Services Committee. "600 Ship Navy and the Maritime Strategy".99th Cong., 1st sess.
13. U.S.Congress. Senate. Armed Services Committee. "Department of Defense Appropriations Fiscal Year 1990".101st Cong.,1st sess.
14. U.S.Congress. Senate. Appropriations Committee. "Department of Defense Appropriations Fiscal Year 1990".101st Cong.,1st sess.
15. U.S.Congress. Senate. Armed Services Committee. "Department of Defense Authorization for Fiscal Year 1990 and 1991".101st Cong.,1st sess.
16. U.S.Congress. House. Appropriations Committee. "Department of Defense Appropriations Fiscal Year 1991".101st Cong., 2nd sess.
17. U.S.Congress. Senate. Armed Services Committee. "National Defense Authorization Act for Fiscal Year 1991". 101st Cong., 2nd sess.
18. Secretary of Defense. "Annual Report to the President and the Congress". January 1990.
19. Office of the Comptroller of the Department of Defense. Subj: SECDEF Testimony on FY 1992-93 Budget Jan 22 1991.
20. United States Marine Corps. "Concepts and Issues". 1990.
21. United States Marine Corps. "Marine Corps Campaign Plan".
22. United States Marine Corps. Draft "Marine Corps Long-Range Plan (MLRP) 2000-2020".
23. United States Marine Corps. "Maritime Prepositioning Force Analysis". Marine Corps Combat Development Command, Warfighting Center.
24. United States Marine Corps. "Concept Paper: Expanded MPF Employment Options". Marine Corps Combat Development Command, Warfighting Center, Concepts and Plans Branch, 14 Jan. 1991.
25. United States Marine Corps. "Concept Paper: Expanded Deployment Options". Marine Corps Combat Development Command, Warfighting Center, Concepts and Plans Branch, 14 Jan. 1991.

26. United States Marine Corps. "Concept Paper: Roll-on/Roll-off Discharge Facility (RRDF)". Marine Corps Combat Development Command, Warfighting Center, Concepts and Plans Branch, 14 Jan.1991.
27. United States Navy. "Ships, Aircraft and Weapons of the United States Navy". Department of the Navy Office of Information, Washington, D.C. August 1984.
28. United States Navy. "Briefing: Seapower and Global Leadership: Maritime Concepts for 90's and Beyond". OP-06.
29. U.S. Arms Control and Disarmament Agency. "World Military Expenditures and Arms Transfers 1989". U.S.GPO Washington, D.C.
30. Headquarters, Marine Corps. Code PP&O.

PERIODICALS

31. Colonel Joseph H. Alexander. "The Next Assault Amphibian". Proceedings Nov 1989. 38-43.
32. Brig.Gen. John C. Bahnson, Jr., USA-Ret. "Mr. President, We Can't Go!". Armed Forces Journal International October 1987. 112-116.
33. Lieutenant Commander Michael C. Brauenbeck, U.S.Navy. "Front-line Lessons". Proceedings April 1991. 90-91.
34. James W. Canan. "The Watchword Is Flexibility". Air Force Magazine February 1990. 56-61.
35. William J. Cooper. "Using Containerships for Deployment". Army Logistician September-October. 2-5.
36. Bonner Day. "A Force in Being?". Sea Power November 1980. 34-40.
37. LCdr Carl A. Douglas, USN(Ret). "Using the LCACs". Marine Corps Gazette January 1990. 77-79.
38. Thomas H. Etzold. "Is Mahan Still Valid". Proceedings August 1980. 38-43.
39. Thomas H. Etzold. "National Strategy and Mobilization: Emerging Issues for the 1990s". Naval War College Review Winter 1990. 19-30.
40. Commander George V Galdorisi, U.S.Navy. "Making It Work". Proceedings September 1990. 72-76.
41. The Honorable H. Lawrence Garrett III Secretary of the Navy, Admiral Frank B. Kelso II Chief of Naval Operations and General A.M.Gray Commandant of the Marine Corps. "The Way Ahead". Marine Corps Gazette Supplement April 1991. 2-13.
42. Colonel Theodore L Gatchel U.S.Marine Corps. "Hang Together, or Hang Separately". Proceedings November 1990. 56-62.
43. James L George. "A Strategy in the Navy's Best Interest". Proceedings May 1991. 114-123.
44. Glenn W. Goodman, Jr. and Scott C. Truver. "An Exclusive AFJ interview with: V.Adm. Walter T. Piotti, Jr., USN". Armed Forces Journal International July 1987. 48-52.

45. Captain Clark Graham, U.S.Navy. "There Is No Customer For Change". Proceedings May 1990. 132-141.
46. Cohn S. Gray. "Maritime Strategy" Proceedings February 1986. 34-42.
47. Col Wallace C Gregson, Jr. "Sea-Based Indirect Warfare". Marine Corps Gazette Extract May 1990. 39-41.
48. Amit Gupta. "India's Military Buildup: To What Purpose?". Armed Forces Journal International October 1989. 58-60.
49. N. Elizabeth Gurin. "Challenge in the Pacific: US Basing Beyond the 1990s". Armed Forces Journal International November 1989. 56-60.
50. Col James J. Harp, USMC(Ret). "Commentary on Containerization". Marine Corps Gazette January 1990. 49.
51. B.H. Liddell Hart. "Marines and Strategy". Marine Corps Gazette Extract May 1990. 18-25.
52. James D. Hessman. "Phase II For ARAPAHO". Sea Power August 1980. 38.
53. Maj Joseph R. Holzbauer. "RDF-Valid and Necessary, But Some Negative Implications". Marine Corps Gazette August 1980. 33-38.
54. Commander Robert H. Howe, U.S.Navy. "Tomorrow's Gator Navy". Proceedings December 1988. 62-67.
55. Colonel Roger M. Jaroch, U.S. Marine Corps. "Supporting Land Warfare". Proceedings November 1988. 50-55.
56. Colonel Lawrence G. Karch, U.S. Marine Corps. "The Corps in 2001". Proceedings November 1988. 40-45.
57. Robert W. Kesteloot. "Fast Sealift Ship Program: All Ahead Slow". Sea Power May 1990. 17-20.
58. Cdr Terrence P. Labrecque, USM. "Seabased Logistics: Viable or Not?". Marine Corps Gazette January 1990. 36-42.
59. Honorable John F. Lehman, JR., Secretary of the Navy. "Nine Principles for the Future of American Maritime Power". Proceedings February 1984. 47-51.
60. Major Thomas C. Linn, U.S. Marine Corps. "Strikes from the Sea". Proceedings November 1989. 34-37.

61. Senator John McCain (R-AZ). "The Need for Strategy in the New Postwar Era". *Armed Forces Journal International* January 1990. 43-47.
62. John F Morton. "The U.S.Navy in 1990". *Proceedings* May 1991. 124-133.
63. James J. Mulquin. "A New Look at ARAPAHO". *Sea Power* May 1979. 23-29.
64. James J. Mulquin. "Navy Completes First Flight Tests on ARAPAHO". *Sea Power* November 1980. 31-33.
65. Captain Douglas M. Norton, U.S.Navy. "Sealift: Keystone of Support". *Proceedings* May 1991. 42-49.
66. Captain Robert M Nutwell, U.S.Navy. "Persian Gulf Ops Prove LPD's Versatility". *Proceedings* November 1989. 106-107.
67. Major Hugh K. O'Donnell, Jr., U.S.Marine Corps. "Northern Flank Maritime Offensive". *Proceedings* September 1985. 42-57.
68. Ronald O'Rourke. "Congressional Watch". *Proceedings* May 1991. 168-175.
69. Lieutenant Commander Terry C. Pierce, U.S.Navy. "Maneuver Warfare: 'The Gators Play, Too'". *Proceedings* November 1989. 48-52.
70. Capt. Charles H. Piersall, Jr., USN(Ret.) "Fast Sealift Support-An Affordable Answer". *Amphibious Warfare Review* Winter 1989. 45-50.
71. L.Edgar Prina. "Gray Emphasizes a New 'Strategy of Stability'". *Sea Power* March 1991. 19-24.
72. John G. Roos and Benjamin F. Schemmer. "An Exclusive AFJI Interview with: General John W. Foss, USA". *Armed Forces Journal International* March 1990. 63-65.
73. John G. Roos. "While DoD Sorts Out Sealift Shortfall Army Planners 'Packaging' the Force". *Armed Forces Journal International* November 1990. 18-20.
74. Robert R Ropelewski. "Low-Intensity Skirmish Opens 1990 Roles-and-Missions War". *Armed Forces Journal International* April 1990. 14.
75. Colonel John C. Scharfen, U.S.Marine Corps, (Retired). "The U.S.Marine Corps in 1989". *Proceedings* May 1990. 178-189.

76. Colonel John C. Scharfen, U.S. Marine Corps, (Retired). "The U.S. Marine Corps in 1990". Proceedings May 1991. 134-140.
77. LtCol Michael K. Sheridan. "The Power Projection of Marines Ashore is an Essential Part of Sea Control". Marine Corps Gazette September 1977. 51-56.
78. Col Eugene E. Shoultz. "Maritime Prepositioning: Long Term Solution-MPS". Marine Corps Gazette August 1980. 57-59
79. Brigadier General Edwin H Simmons, U.S. Marine Corps (Retired). "Getting Marines to the Gulf". Proceedings May 1991. 50-64.
80. Anthony Spellman. "Rapid Deployment Forces on Horizon for Malaysia, Singapore". Armed Forces Journal International April 1991. 36.
81. Major Richard A Stewart, U.S. Marine Corps. "Ships That Can Deliver". Proceeding November 1984. 37-43.
82. Col R.A. Sulik. "Maritime Prepositioning: Near Term Fix-NTPS". Marine Corps Gazette August 1980. 52-56.
83. Maj. Mike Sullivan, U.S. Marine Corps. "Advanced Amphibious Assault Program". Amphibious Warfare Review Winter 1989. 21-23.
84. Lt. Col. Ky L. Thompson, USMC-Ret. "Sealift Testimony Irks Some on Hill". Armed Forces Journal International April 1991. 12.
85. Lt. Col. Ky L. Thompson, USMC-Ret. "Is the Marine Corps the Navy's Unloved Stepchild?". Armed Forces Journal International August 1990. 56-58.
86. LtCol Ky L. Thompson. "For Want of a Ship...". Marine Corps Gazette June 1988. 62-66.
87. LtGen Bernard E. Trainor, USMC(Ret). "A Force 'Employment Capability'". Marine Corps Gazette Extract May 1990. 27-31.
88. Michael Vlahos. "2010 A New Navy". Proceedings January 1991. 63-67.
89. General Carl E. Vuono. "The U.S. Army- Mobility and the Future of Deterrence". NATO'S Sixteen Nations Febr.-March 1990. 75-78.
90. Edward J. Walsh. "'Mobile Sea Base' Concept Being

Explored". Sea Power March 1991. 43-44.

91. Edward J. Walsh. "Amphibious Sealift Plans Face New Realities". Armed Forces Journal International April 1990. 60-64.

93. F.J.West, Jr. "The Case For Amphibious Capability". Marine Corps Gazette October 1974. 18-24.

94. P. Lewis Young. "Prospect of Moving US Philippines Bases to Singapore Strikes Regional Nerve". Armed Forces Journal International October 1989. 37.

95. P. Lewis Young. "Malaysia's Defense Links: Keys to Modernization Plans". Armed Forces Journal International March 1990. 42-46.

96. "Over the Horizon-2000". Amphibious Warfare Review Winter 1989. 14-18.

97. Listing of Navy Ships. Sea Power January 1988. 185, 186 191, 192.

98. "Focus on the Corps, Continuing Role". Marine Corps Gazette Extract May 1990. 17.

99. Admiral James D. Watkins, U.S.Navy. "The Maritime Strategy". U.S.Naval Institute Supplement January 1986. 2-17.

100. General P.X.Kelley, Commandant of the Marine Corps, and Major Hugh K. O'Donnell, Jr., U.S.Marine Corps. "The Amphibious Warfare Strategy". U.S.Naval Institute Supplement January 1986. 18-29.

101. John F. Lehman, Jr. "The 600-Ship Navy". U.S.Naval Institute Supplement January 1986. 30-40.

102. Captain Peter M. Swartz, U.S.Navy. "Contemporary U.S. Naval Strategy: A Bibliography". U.S.Naval Institute Supplement January 1986. 41-47.